

ABSTRACT

A highly strain tolerant, substantially moisture impermeable, reflective crack relief interlayer is provided. The interlayer includes a polymer modified asphalt binder mixed with a dense fine aggregate mixture containing a substantial amount of manufactured sand. The interlayer mix is designed using a fatigue test and a stability test. Preferably, a hot mix asphalt overlay that is compatible with the interlayer, as well as the demands of local traffic and climate, is placed over the interlayer so that a protected, smooth paved surface is provided. The interlayer may delay the first appearance of cracks and the severity of cracks for several years compared with traditional hot mix overlays and extend pavement service life.